

REMARKS

Claims 1-20 were presented for examination, and all have been rejected under either 35 U.S.C. §§ 102 or 103. To claim in the alternative language, claims 1, 2, 5 - 7, 10 - 16, and 18 - 20 are being amended. Claims 4 is being canceled without prejudice. Claims 21-31 are being added. In view of the above amendments and following remarks, reconsideration of the application is respectfully requested.

REJECTIONS UNDER 35 U.S.C. § 102(e) – Karger

In paragraphs 2 - 12 of the Office Action, claims 1-8, 11-17, and 20 were rejected under 35 U.S.C. § 102 (e) as being anticipated by U.S Patent Application No. 10/417,427) by Karger (“Karger”). The rejection of all claims is traversed. Karger does not teach, suggest, or make obvious every element of the claimed invention.

Claim 1 is patentably distinguished from Karger for at least the following reasons. In general, claim 1 is about allocating computer resources to assign to, and thus used by, a program. Two resources of two different types are allocated. For illustration purposes, the two resource types are I/O device and memory array. The first resource is thus an I/O device while the second resource is a memory array. The distance between the allocated first resource (I/O device) and second resource (memory array) is the shortest distance among the distances between the I/O device and memory arrays (resources of the second-resource type). Further, the distance between the computer resources is stored as firmware, and, upon power-up, the operating system is provided with the distances between the computer resources for use in allocating the I/O device and the memory array.

In contrast, Karger is about “*distributing a request* to one of a plurality of resources” (Abstract, the first sentence, emphasis added). In the cited paragraph [0063], page 5, the request is a request from a client for a document, and the resources are cache servers. Therefore, Karger is not about *allocating resources*, e.g., the first resource and the second resource to be assigned to a program as the claimed invention. Even though Karger discusses “the least distance,” Karger’s least distance is from the *resource* to *the request* (paragraph [0063], page 5), but not the shortest distance among distances between the first *resource* to *resources* of the second resource-type as the claimed invention.

Further, in claim 1, the distances between the computer resources are stored as *firmware* and are provided, *upon power-up*, to the operating system for use in allocating the first resource and the second resource, which is not disclosed, suggested, or made obvious by Karger. The cited paragraph [0032] on page 4 discloses “a computer-readable medium whose contents cause a computer system to distribute a request to one of a plurality of resources The computer program maps the request to a request location in a mathematical mapping space” However, there is no teaching in Karger that the mapping is stored as firmware as the claimed invention, even if, for the sake of argument that, Karger’s mapping corresponds to the claimed distances between the computer resources.

The cited paragraphs [0107-0109] on page 10 discuss communication with equal ease ([0107]), metrics that can be used to measure the distance between machines ([0108]), and no guarantee to pass a message from one machine to another, which has no relevance to the claimed “upon power-up, an operating system is provided, from the firmware, with the distance between the computer resources for use in allocating the first resource and the second resource.”

Because claim 1 recites limitations not taught, suggested or made obvious by Karger, claim 1 is patentable.

Claims 2-10 depend directly or indirectly from claim 1 and are therefore patentable for at least the same reasons as claim 1. Claims 2-10 are also patentable for their additional limitations as appropriate as those limitations are not taught, suggested, or made obvious by Karger.

Independent claim 11 is patentably distinguished from Karger for at least the following limitations: “the first resource and second resource are selected based on a plurality of distances including distances between a plurality of first-type resources to a plurality of second-type resources,” and “the plurality of distances are stored as firmware and provided to an operating system at power-up for use in selecting the first resource and the second resource.”

Even though Karger discusses the distance between cache servers, Karger does not teach the first resource (e.g., an I/O device of the first resource type) and the second resource (e.g., a memory array of the second resource type) *are selected based on a plurality of distances*. For the sake of argument that Karger’s servers correspond to the claimed resources, e.g., I/O devices and memory arrays, to be parallel with claim 11, Karger must have taught that two servers are selected to be part of a system based on the distances between the servers. Apparently, Karger does not teach such limitation. Further, as discussed in the rejection of claim 1, Karger does not teach the plurality of distances are stored as *firmware* and *provided to an operating system at power-up* for use in selecting the first resource and the second resource.

Because claim 11 recites limitations not taught, suggested or made obvious by Karger, claim 1 is patentable.

Claims 12-19 depend directly or indirectly from claim 11 and are therefore patentable for at least the same reasons as claim 11. Claims 2-10 are also patentable for their additional limitations as appropriate.

Independent claim 20 recites various limitations similar to claims 1 and 11, and is therefore patentable for at least those limitations. Examples of those limitations include: “the distance between the computer resources is stored as firmware; and upon power-up . . . , the operating system is provided, from the firmware, with the distances between the computer resources to be used in allocating the first resource and the second resource.” Additional limitation patentably distinguished from Karger includes “a distance from the second resource to the first resource is the shortest distance *among distances between the first resource to resources of the second-resource type*” (emphasis added).

REJECTIONS UNDER 35 U.S.C. § 103 – Karger in view of “Official Notice”

In paragraphs 13 - 19, claims 9, 10, 18, and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Karger in view of “Official Notice.” The rejection of these claims is traversed. Karger and the facts taken by Official Notice, either alone or in combination, do not teach every elements of the claimed invention. The Official Notice is improper. The alleged motivation for combining Karger and the facts taken by Official Notice is improper.

As discussed above, claims 9 and 10, and 18 and 19 are patentable for at least the same reasons as claims 1 and 11, respectively.

Further, the facts taken by Official Notice do not provide limitations missed in Karger, which were discussed in response to the 35 U.S.C § 102 rejection above. Therefore, Karger and the “Official Notice,” either alone or in combination, do not teach every element of claims 9, 10, 18, and 19.

The alleged motivation for combining an input device associated with the storage device with Karger is a general and conclusory statement without indicating with specificity where in Karger that provides such motivation. The alleged motivation for an obviousness 35 U.S.C §103 rejection is therefore improper.

In paragraph 16, regarding claim 9, the Office Action asserted that “‘Official Notice’ is taken that both the concept and advantages of providing an input device is well known and expected in the art. It would have been obvious to one of the ordinary skill in the art to include an input device associated with the storage device with Karger because it would provide the client ability, when using a keyboard, to type a program, which can then be stored in a storing device storing the program and provide interactivity between a user and client (i.e. computer).”

The standards for Official Notice to be taken are very high. According to MPEP section 2144.03 “[o]fficial notice without documentary evidence to support an examiner’s conclusion is permissible *only in some circumstances* Official notice . . . should only be taken where *the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known*, the notice of facts beyond the record . . . must be ‘capable of such instant and unquestionable demonstration as *to defy dispute*’ (citing *In re Knapp Monarch Co.*, 296 F.2d 230, 132 USPQ 6 (CCPA 1916))” (emphasis added). As a result, the MPEP, in the same section, clearly recites: “[i]t would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known” (original emphasis).

Embodiments of the invention allocate resources for efficient use by a program (the Title) and, therefore, an embodiment first allocates an I/O device then memory array and a processor having a shortest distance. In an alternative

embodiment, the I/O device is first selected if the I/O device is connected to a storage device storing the program or application data used by the program (page 9, line 1-11). As claimed in claim 9, the first resource is “an input device associated with a storage device storing the program or storing data associated with the program.”

Reading together with independent claim 1 from which claim 9 depends from, the claimed invention in claim 9 may be expressed as follows: allocating a first resource, that is, the input device associated with a storage device storing the program or storing data associated with the program, and a second resource (e.g., a memory array) wherein the distance from the second resource (e.g., memory array) to the input device is the shortest distance among distances between the input device to resources of the second-resource type (e.g., memory arrays). Those skilled in the art will recognize that there may be various ways to allocate the first resource, such as a memory array, a processor, etc., instead of an input device as in the claimed invention. Therefore, the fact that the first resource is an input device is not *common knowledge in the art or capable of instant and unquestionable demonstration as being well-known or capable of such instant and unquestionable demonstration as to defy dispute* as required by the high standard of taking Official Notice. Further, depending on purposes, the input device may be such that it stands by itself; it is associated with another I/O device where the program may be provided; it is associated with a processor, etc., rather than being *associated with a storage device storing the program or storing data associated with the program*. As a result, allocating the input device as claimed cannot be said to be common knowledge or defy dispute. None of the above standards for taking Official Notice was met. Taking Official Notice is therefore improper.

Added claim 31 recites “an I/O device connected to a storage device . . .” in place of “an input device associated with a storage device . . .” as in claim 9. However, all discussion related to claim 9 is also applicable to claim 31.

In paragraph 18, regarding claim 10, the Office Action asserted that “‘Official Notice’ is taken that both the concept and advantages of allocating a third resource is well known and expected in the art. It would have been obvious to one of the ordinary skill in the art to include allocating a third resource with Karger because it would provide for more resources and better access time when the 3rd resource is closer.” Allocating a third resource having a shortest distance to either the first resource or the second resource cannot be *common knowledge or capable of instant and unquestionable demonstration as being well-known or capable of such instant and unquestionable demonstration as to defy dispute* as required by the high standards of taking Official Notice. For example, a third resource may not be needed for use by a program as in the claimed invention; a third resource may be allocated such that it is in between the first resource and the second resource etc., instead of having a shortest distance to either the first resource or the second resource. As a result, taking Official Notice is again improper.

To claim in the alternative language, claim 10 is being amended. However, discussion related to original claim 10 is also applicable to amended claim 10.

Discussion related to claims 9 and 10 are also applicable to claims 18 and 19.

NEW CLAIMS

Claims 21-31 are being added and include limitations distinguished from the prior art of records, and are therefore patentable. These limitations are supported in the Specification. No new matter is added. Examples of limitations in claim 21 patentably distinguished from Karger include: the allocated first and second resource

are to be used by a program; a distance between the first resource and the second resource is the shortest distance among the distances between the plurality of first resources to the plurality of second resources; upon power-up of a system running an operating system, the operating system is provided, from the firmware, with the distances between the computer resource to be used in allocating the first resource and the second resource.

Examples of limitations in claim 22 patentably distinguished from Karger includes: firmware embodying distances between resources wherein upon power-up of the system, the operating system uses the distances in the firmware to allocate an I/O device, a memory device, and a processor for use by a program, among others.

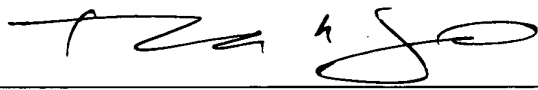
Examples of limitations in claim 23 patentably distinguished from Karger include: upon power-up, the operating system uses the relative distances between the plurality of nodes in the firmware to allocate resources to be used by a program, among others. Claims 24-30 depend from claim 23 and are therefore patentable for at least the same reasons as claim 23. Claims 24-30 are also patentable for their own limitations.

SUMMARY

Pending claims 1-20 and added claims 21-31 clearly present subject matter that is patentable over the prior art of record, and therefore withdrawals of the rejections and consideration of the claims are respectfully solicited.

Respectfully submitted,

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